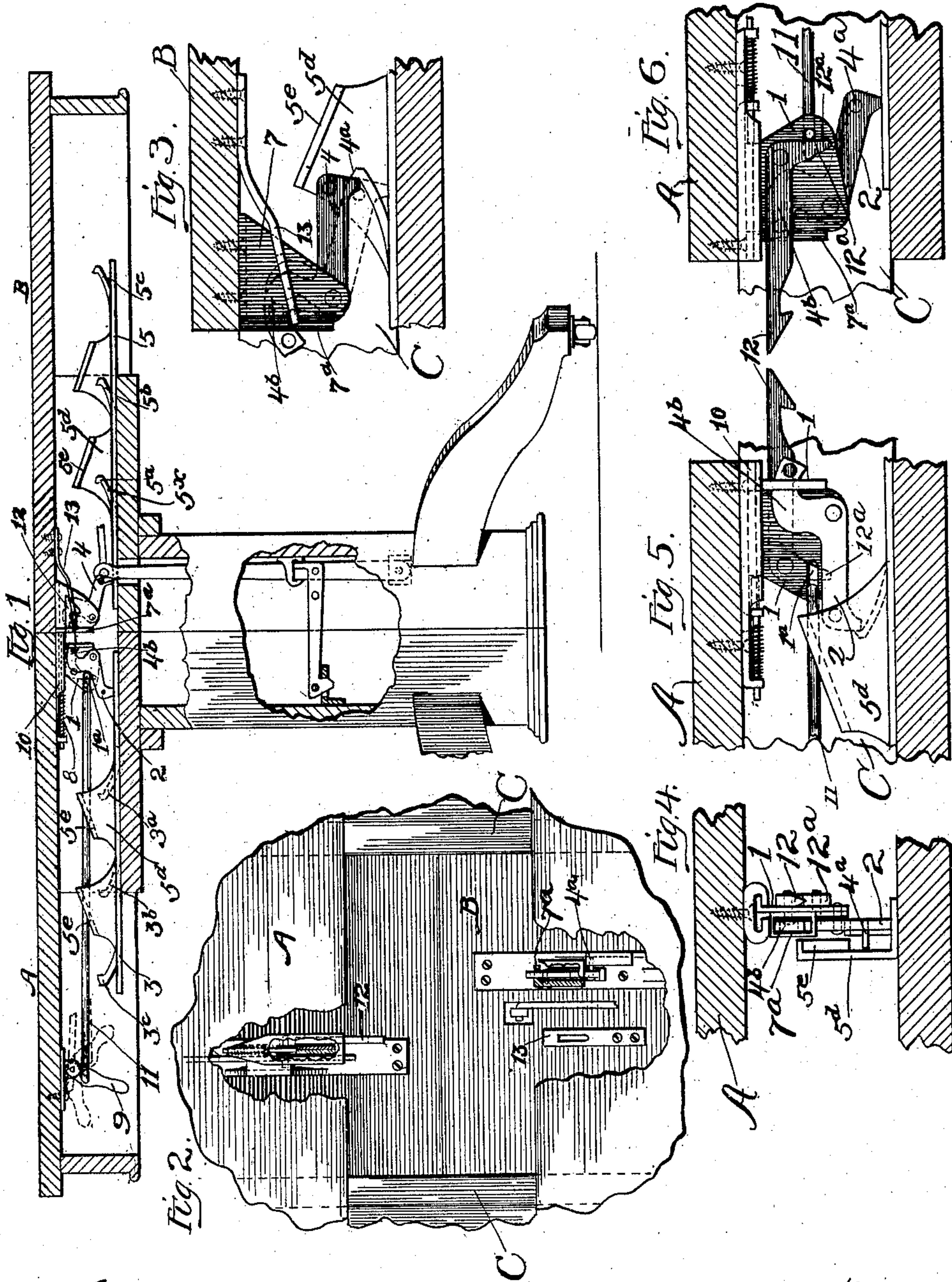


E. TYDEN.  
EXTENSION TABLE.  
APPLICATION FILED MAR. 8, 1909.

963,665.

Patented July 5, 1910.

2 SHEETS—SHEET 1.



Witnesses:  
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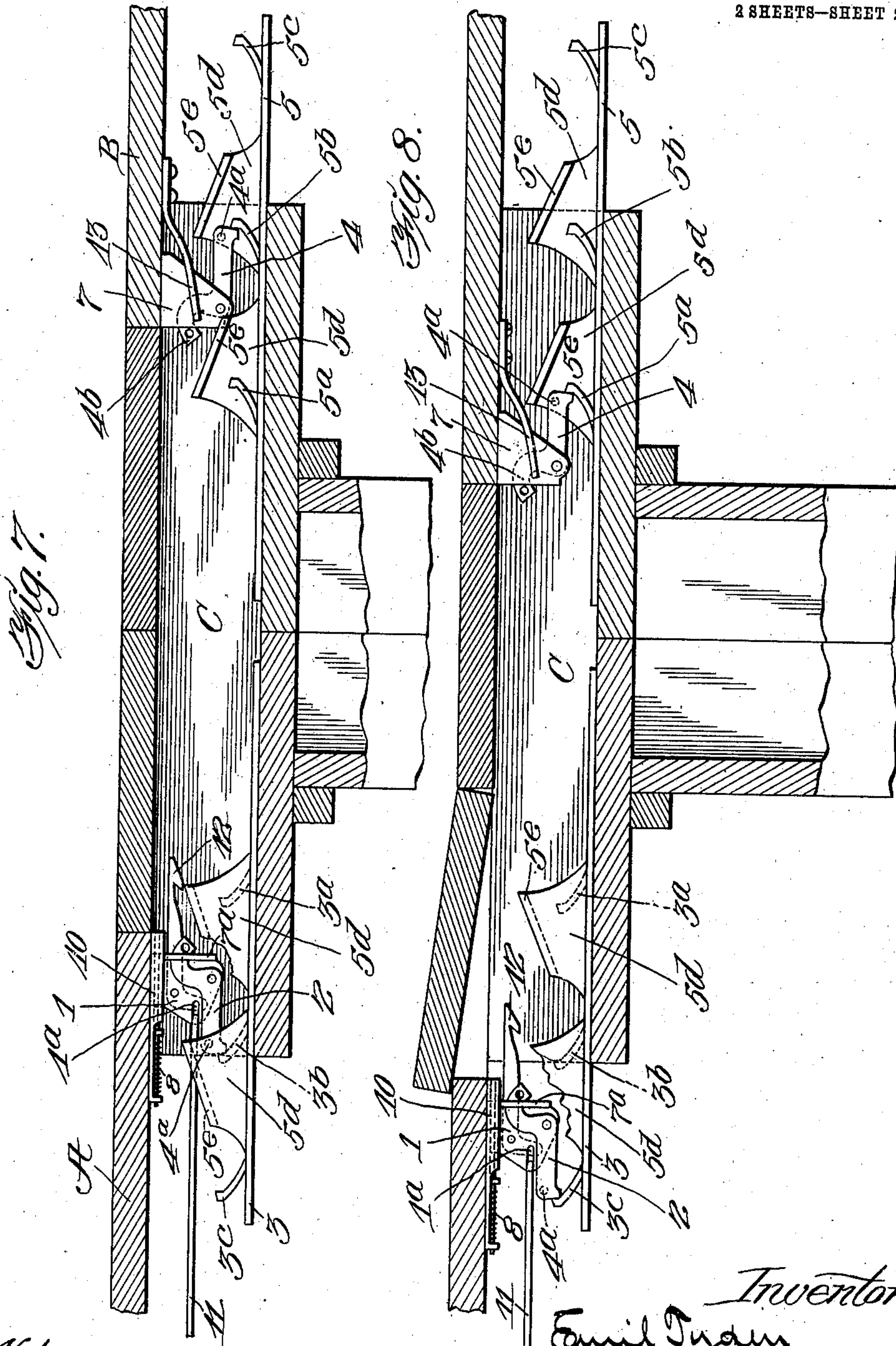


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# UNITED STATES PATENT OFFICE.

EMIL TYDEN, OF HASTINGS, MICHIGAN.

## EXTENSION-TABLE.

963,665.

Specification of Letters Patent.

Patented July 5, 1910.

Application filed March 8, 1909. Serial No. 482,161.

*To all whom it may concern:*

Be it known that I, EMIL TYDEN, a citizen of the United States, residing at Hastings, in the county of Barry and State of Michigan, have invented new and useful Improvements in Extension-Tables, of which the following is a specification, reference being had to the drawings forming a part thereof.

This invention relates to extension tables of the type in which the top members are separable without regard to separation of the pedestal, and its purpose is to provide improved means for preventing the unequal extension of the two table top members when the interval between them is fully occupied by fillers.

It consists in the features of construction shown and described as indicated in the claims.

In the drawings:—Figure 1 is a vertical longitudinal section of an extension table equipped with this invention showing the same at closed position. Fig. 2 is a detail section of a portion of a table showing the same extended for the admission of one in the same plane as Fig. 1 showing in side elevation one of the extension stop devices. Fig. 3 is an enlarged detail section of the table members of the stop and locking device upon one member. Figs. 5 and 6 are detail longitudinal sections of said table member showing the devices represented in Fig. 4 in opposite side elevations. Fig. 7 is a view similar to Fig. 1 showing the table members equally extended to admit two fillers. Fig. 8 is a similar view showing the table members extended the proper number of steps for admission of two fillers, the extension being unequally distributed so that the fillers cannot be introduced.

The table shown in the drawings has a pedestal divided and adapted to be equipped with means for locking it together, but this is immaterial for the purpose of the present invention, and is only illustrated to indicate that such division and locking of the pedestal is not defeated by the presence of this invention for controlling the extension of the top. It will be understood that the two top members, A and B, are connected with the pedestal for extension by the slides, C, in the customary manner. The table top member, A, is provided with a dog, 2, for engagement with upstanding fixed hooks or

abutments, 3<sup>a</sup>, 3<sup>b</sup>, 3<sup>c</sup>, on a plate, 3, which is mounted on the pedestal,—and in case of a divided pedestal upon the member thereof which carries the table top member, A,—the said abutments or hooks, 3<sup>a</sup>, 3<sup>b</sup>, 3<sup>c</sup>, being in position to be engaged by the dog, 2, at different stages of extension, the abutment, 3<sup>a</sup>, being at the point for engagement when the table member, A, is extended one-half filler width plus the amount of any draw which may be provided, as hereinafter explained, for closing tightly together the table top members with or without interposed fillers, the abutment or hook, 3<sup>b</sup>, being at position for engagement when the table top member is extended two half filler widths plus the draw, and the abutment, 3<sup>c</sup>, being at position for such engagement and drawing when said table top member is extended from the center something less than three half filler widths: that is, the distance from 3<sup>b</sup> to 3<sup>c</sup> is less than the distance from 3<sup>a</sup> to 3<sup>b</sup> for a reason hereinafter explained.

The dog, 2, is pivoted upon a hanger, 1, which is mounted for sliding on a bracket, 10, secured to the table top member, A, said hanger, 1, being connected by a rod, 11, with an operating lever 9 pivoted near the end of the table top in position to be reached by the operator standing at the end, a spring, 8, being provided reacting upon the hanger, 1, to normally thrust it toward the parting plane of the table members. The rod, 11, is pivotally connected to the lever, 9, at a little distance from the fulcrum of the lever, so that when the lever handle is pulled out toward the end of the table, said pivotal connection of the rod to the lever may be carried past the fulcrum of the lever by the time the handle is stopped, thereby locking the hanger, 1, and dog, 2, at the position to which they are thus withdrawn; and when this action of the lever is performed when the dog, 2, is in engagement with one of the abutments, 3<sup>a</sup>, 3<sup>b</sup> or 3<sup>c</sup>, the effect is to thrust the table top member inward relatively to the pedestal, and so to bind the two table top members together if the opposite member is at that time stopped on the pedestal. The other table top member, B, is provided with a dog, 4, for engagement with the abutments, 5<sup>a</sup>, 5<sup>b</sup> and 5<sup>c</sup>, on the plate, 5, mounted upon the pedestal, and in the case of a divided pedestal, upon the member thereof on which the table member, B, is carried. The abutment, 5<sup>a</sup>, is posi-



tioned for engagement of the dog, 4, when the table top member, B, is extended one-half filler width, the abutment, 5<sup>b</sup>, at position for similar engagement when the table top member, B, is extended two half filler widths, and the abutment, 5<sup>c</sup>, at position for like engagement when the table top member is extended as much more than three half filler widths as the distance between the abutments, 3<sup>b</sup> and 3<sup>c</sup>, is less than one half filler width. With this construction it results that when each table member is extended a half filler width, a filler being inserted, each member being stopped by engagement of its hook with the first abutment provided for it on the pedestal, the table may be locked by the draw of the lever, 9; but if either member is extended two half filler widths and the other left unextended, the table cannot be locked because the member not extended has no engagement with the pedestal for resisting the draw of the hook. Similarly, if each table top member is extended two half filler widths for admitting two fillers, each will be engaged with the proper abutment and the table will be locked by the draw of the hook; but if either member is extended three steps and the other one step, either, in case the member extended three steps is the member, A, there will not be room to admit three fillers because the distance from abutment, 3<sup>b</sup>, to abutment, 3<sup>c</sup>, is less than a half filler width, and all the other intervals are a half filler width only, or if the top member, B, is extended three steps the three fillers cannot be locked because the interval from 5<sup>b</sup> to 5<sup>c</sup> is more than a half filler width, and the other intervals are each a half filler width.

The general principle involved in the construction above described, which involves unequal length of the third step of extension at each side, is that whenever the aggregate extension of the two table-top members amounts to an even number of the steps at which said top members respectively are stopped on the supporting member, unless such steps are equally divided between the two top members, the separation of the two top members,—that is, the aggregate of the steps, shall be either less than a multiple of the filler width plus the draw of the movable engaging device so that the requisite number of fillers to occupy the space cannot be inserted with room for such drawing, or more than such multiple plus the draw, so that if inserted, they cannot be locked or clamped by such draw. This result may be effected by differently locating the unequal steps.

Independently of the means for locking the table members together so as to secure it with an extension of any number of fillers, and merely for the purpose of rendering it impossible inadvertently to

extend the table top an unequal number of steps in opposite directions, it is desirable to construct and locate the dog, 4, and the adjacent parts so that the dog cannot be held continuously out of position for encountering the abutments on the plates, 3 and 5, but so that, on the contrary, it will necessarily come into abutment-encountering position in the interval between the abutments, and must be lifted from such position by separate action of the operator at each step; that is, so that the operator cannot move either table-top member by continuous uninterrupted movement two half filler-width steps at a time. For this purpose each dog may be provided with a laterally jutting projection, 4<sup>a</sup>, and the plates, 3 and 5, may each have in addition to the abutments, 5<sup>a</sup>, 5<sup>b</sup>, 5<sup>c</sup>, an upstanding flange, 5<sup>d</sup>, from which sloping lips, 5<sup>e</sup>, jut off so as to overhang the path of the projections, 4<sup>a</sup>, in position to be encountered thereby in the extending movement just after the dog has passed over the abutments respectively. Such encounter forces the dog down again into the path in which it must encounter the next abutment of the plate. As a farther means of preventing the operator from holding the hook continuously out of engagement or maintaining such pressure upon it as to immediately withdraw it from engagement path after it has been forced thereinto by the means, such as above described, for that purpose, the means for operating the dog for disengaging it from the abutments may consist in an angle extension, 4<sup>b</sup>, the end of which projects through a guard flange, 7<sup>a</sup>, formed on the part,—bracket, 7, or hanger, 1,—by which the dog is pivotally mounted on the table top member to which it pertains, the end of said angle extension being grasped by the fingers of the operator and pulled out to lift the hook, and being withdrawn back through the flange, 7<sup>a</sup>, out of the grasp of the operator when the dog is forced down by the sloping projections, 5<sup>e</sup>, the dog being lifted sufficiently to again protrude the projection through the guard flange by the slope, 5<sup>b</sup>, of the plate leading up to the next abutment.

For locking the two top members at closed position without fillers there is provided a hook, 12, pivoted on the sliding hanger, 1, having its hook nose projecting across the meeting plane of the two table tops for engagement with a housing, striker or eye, 13, on the opposite table member. The hook has a tail, 12<sup>a</sup>, extending downward at an angle to the forward trend of the hook past the slot, 1<sup>a</sup>, at which the rod, 11, is engaged with the hanger, 1, and in the path of thrust of the rod. The weight of the hook overbalances the tail and tends to effect engagement with the striker when the two top members



are pushed together, and the lever, 9, being then operated for drawing, as when fillers are inserted, the two top members are drawn and clamped together. For unlocking the table when it is to be spread, the lever, 9, is swung first down as in Fig. 1 and then inward to the position shown in dotted line in Fig. 1. The first half of the movement to vertical position relaxes the clamping of the table members, and in the further movement the end of the rod engaged with the hanger, 1, leading into the slot, 1<sup>a</sup>, operates against the tail, 12<sup>a</sup>, of the hook, 12, lifting its hook nose out of engagement with the striker, 13, so that the table members may be separated.

I claim:—

1. In an extension table having top members movable relatively to a supporting member for separating them to admit fillers, in combination with such supporting member and top members, step-by-step engaging devices for stopping the extension of the top members respectively over the supporting member, one of such devices being constructed for drawing inward the top member on which it operates, the combined extent of any even number of steps of separation of the two top members which are unequally divided between them less the extent of said draw being unequal to any multiple of the filler width.

2. In an extension table having top members movable relatively to a supporting member for separating them to admit fillers, in combination with such supporting member and top members, step-by-step engaging devices for stopping the extension of the top members respectively over the supporting member, one of such devices being constructed for drawing inward the top member on which it operates, the step-by-step engaging devices being positioned for stopping one of said members at distances from closed position equal to one, two and less than three half-filler widths plus the extent of the draw, and for stopping the other top member at one, two and more than three half-filler widths.

3. In an extension table having top members movable relatively to a supporting member for separating them to admit fillers, in combination with such supporting member and top members, step-by-step engaging devices for stopping the extension of the top members respectively over the supporting member, one of such devices being constructed for drawing inward the top member on which it operates, the step-by-step engaging devices being positioned for stopping one of said members at distances from closed position equal to one, two and less

than three half-filler widths plus the draw, and for stopping the other top member at one, two and more than three half-filler widths plus the draw, and means for locking the two top members to each other at closed position.

4. In an extension table having top members movable relatively to the supporting member for separating them to admit fillers, in combination with such supporting member and top members; devices for positively engaging the top members respectively with the supporting member at step-by-step intervals of extension of said top members which effect such engagement independently of each other and of the fillers and are manually operable independently of each other.

5. In an extension table having top members movable relatively to the supporting member for separating them to admit fillers, in combination with such supporting member and top members, independently operable step-by-step engaging devices for stopping the extension of the table members respectively over the supporting member, such engaging devices being inaccessible for holding the same released in the intervals between the steps.

6. In an extension table having top members movable relatively to a supporting member for separating them to admit fillers, in combination with such supporting member and top members, disengageable step-by-step engaging devices for stopping the extension of the top members respectively over the supporting members, abutments in the path of the step movement of such engaging devices positioned for encounter thereby to force them into engaging position during the step movement.

7. In an extension table having top members movable relatively to a supporting member for separating them to admit fillers, in combination with such supporting member and top members, step-by-step engaging couples for stopping the extension of the top members over the supporting member; means for causing one element of each couple to normally occupy position for encounter of the other element at the step limits, and means for preventing movement of said first element out of such encountering position at some point in the interval between said step limits.

In testimony whereof, I have hereunto set my hand at Chicago, Illinois, this 3d day of March, 1909.

EMIL TYDEN.

Witnesses:

J. S. ABBOTT,

M. GERTRUDE ADY.